

Remarks

Reconsideration and allowance of this application, as amended, are respectfully requested.

Applicants acknowledge with gratitude the telephonic interview of June 9, 2010, conducted with the examiner and his supervisor, Mr. M. Cleveland. During the interview, Applicants' representative addressed the following (as presented in the agenda requested by the examiner, which was transmitted by facsimile to the U.S. Patent and Trademark Office ("USPTO") on June 3, 2010):

a. Office Action statement that "a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art" ("Response to Arguments," Office Action pages 2-3).

b. Office Action assertion that "the apparatus of Nasli-Bakir comprises pumps and valves upstream and downstream of the third glue reservoirs (16, 18), thus the third glue reservoir is capable of having a higher pressure than the second glue reservoir in that the pumps and valves control the flow of glue in and out of the third glue reservoir and thus control the pressure in that reservoir" ("Response to Arguments," Office Action page 3).

c. Office Action assertion that "since the glue is pumped from the third glue reservoir (16, 18) to the second glue reservoir 44 by pumps 30 and 32 the reservoir is configured to supply the glue

to the second glue reservoir in a pressurized state" (Office Action page 5).

d. Cited U.S. Publication No. 2002/0015786 of Nasli-Bakir et al. ("Nasli-Bakir"), including Figure 1 (prior art, relied upon in the Office Action, and Figure 2).

e. Nasli-Bakir disclosure that "[t]he day tanks are provided with level sensors 20, 22 outputting level signals to a control cabinet 28. In response to a LOW LEVEL signal from the sensors the pumps 12, 14 and valves 24, 26 are activated so as to replenish the day tanks 16, 18. From the day tanks 16, 18 the glue and hardener is fed via metering pumps 30, 32 and flow meter 34, 36 to a mixer 38. The flow meters feed information of the flow to the control cabinet 28, and this feedback is used to control the metering pumps 30, 32" (paragraph [0028], associated with Figure 1).

f. Nasli-Bakir disclosure that "[t]he day tanks are provided with level sensors 20, 22 outputting level signals to a control cabinet 28. In response to a LOW LEVEL signal from the sensors the pumps 12, 14 and valves 24, 26 are activated so as to replenish the day tanks 17, 18. From the day tanks 17, 18 the glue and hardener is fed via metering pumps 30, 32 and flow meters 34, 36 to a mixer 38. The flow meters feed information of the flow to the control cabinet 28, and this feedback is used to control the metering pumps 30, 32." (paragraph [0034], associated with Figure 2).

Applicants then directed the examiners' attention to instant application Figure 7 and pending claim 1, and described the

structural differences between the claimed invention and the prior art, with emphasis on the deficiencies of the Nasli-Bakir publication.

More specifically, Applicants urged that one of the structural differences between Nasli-Bakir and the claimed invention is that in the prior art system depicted in Nasli-Bakir's Figure 1, there are metering pumps 30, 32 located between the "third reservoir" (day tanks 16, 18) and the "second reservoir" (spreader pipe 44; see top of Office Action page 5) (emphasis added). Applicants explained that the prior art system depicted in Nasli-Bakir's Figure 1 *requires* the metering pumps to deliver the glue and hardener to the mixer 38 because the day tanks 16, 18 are *not pressurized*.

In fact, Nasli-Bakir teaches that the day tanks 16, 18 are on level control. And, Nasli-Bakir teaches that "[f]rom the day tanks 16, 18 the glue and hardener **is fed via metering pumps** 30, 32 and flow meter 34, 36 to a mixer 38. The flow meters feed information of the flow to the control cabinet 28, and this feedback is used to control the metering pumps 30, 32."

Applicants explained that the claimed invention has no such pumps between the third reservoir and the second reservoir, and logically so. As required by claim 1, Applicants' apparatus includes "a third glue reservoir configured as two glue subreservoirs disposed downstream of the first glue reservoir and upstream of the second glue reservoir and **configured to supply the**

glue to the second glue reservoir in a pressurized state, the glue in the third glue reservoir being under a higher pressure than the glue in the second glue reservoir." Applicants explained that one skilled in the art would not place a *pump* in a line that delivers a pressurized fluid from a *higher pressure* to a *lower pressure*. Applicants suggested that one might employ a *metering valve* to regulate the flow of pressurized fluid from a *higher pressure* to a *lower pressure*, but *not a metering pump*.

Along this same line, Applicants also pointed out that the Office Action assertion that "since the glue is pumped from the third glue reservoir (16, 18) to the second glue reservoir 44 by pumps 30 and 32 the reservoir is configured to supply the glue to the second glue reservoir in a pressurized state" (Office Action page 5) is simply incorrect. The "reservoir" depicted in Nasli-Bakir's Figure 1, i.e., day tanks 16, 18, is not configured to supply anything in a pressurized state. Instead, as explained in detail, the prior art system depicted in Nasli-Bakir's Figure 1 requires the *metering pumps* to deliver the glue and hardener to the mixer 38 because the day tanks 16, 18 are *not pressurized*.

Accordingly, Applicants urged that (i) one structural difference between Nasli-Bakir and the claimed invention is that Applicants' apparatus has no pump between the third reservoir and the second reservoir, and (ii) since Nasli-Bakir requires the pump, the reference does not meet Applicants' claimed feature of *the glue*

in the third glue reservoir being under a higher pressure than the glue in the second glue reservoir."

In short, the examiners' response was that conceivably, in the prior art system depicted in Nasli-Bakir's Figure 1, despite the required metering pumps, the third reservoir (i.e., day tanks 16, 18) could have a higher pressure than the second reservoir (i.e., spreader pipe 44, as asserted by the Office Action) since valves 40, 42 are located upstream of mixer 38.

Applicants' representative respectfully disagreed, urging that (i) there is no disclosure whatsoever in Nasli-Bakir to support the examiners' "conceivably" assertion, and that (ii) any person skilled in the art would recognize that the level and flow control system disclosed in Nasli-Bakir would be inoperable if the day tanks 16, 18 were pressurized as asserted by the examiners.

Turning to the Amendment, claims 5, 23, and 24 have been amended. New claims 25 and 26 have been added. Claims 1, 2, 5-17, 20, 21, and 23-26 are now pending in the application, with claims 2 and 15 previously withdrawn from consideration as being directed to a non-elected invention. Claims 1, 20, 23, 25, and 26 are independent. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein. No new matter has been introduced through the foregoing amendments.

Claim 5 has been amended to even more particularly define the pressure regulator feature of the invention. Claims 23 and 24 have been amended to overcome the rejection of claim 24 under 35

U.S.C. § 112, first paragraph, and to even more particularly define the invention. Instant claim 23 recites in pertinent part that "the glue in the third glue reservoir [is] under a first pressure and the glue in the second glue reservoir [is] under a second pressure, the first pressure being higher than the second pressure." Thus, instant claim 24 recites in pertinent part that "the pressure regulator reduces the first pressure to the second pressure." Accordingly, the ground of rejection associated with "the glue line" is deemed to be obviated.

New claims 25 and 26 (discussed below) have been added to further define the scope of protection sought for Applicants' invention.

Entry of each of the amendments is respectfully requested.

35 U.S.C. § 103(a) – Nasli-Bakir, Kubota, and Boeck

Claims 1, 5-9, 20, 21, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2002/0015786 of Nasli-Bakir et al. (hereinafter "Nasli-Bakir") in view of U.S. Patent No. 5,350,600 to Kubota and U.S. Patent No. 5,111,855 to Boeck.

In summarizing the Nasli-Bakir reference, the Office Action relies upon the disclosure in Nasli-Bakir's Figure 1, which depicts the prior art. The Office Action asserts that "the apparatus is comprised of a third glue reservoir configure[d] as

two glue subreservoirs in the form of day tanks 16 and 18 which as shown in Figure 1 are disposed downstream of the first glue reservoirs (4, 6) and upstream from the glue reservoir 44." The Office Action also asserts that "[f]urthermore since the glue is pumped from the third glue reservoir (16, 18) to the second glue reservoir 44 by pumps 30 and 32 the reservoir is configured to supply the glue to the second glue reservoir in a pressurized state (Figure 1 and Page 2 Paragraphs 0028-0030)" (Office Action page 5) (emphasis added).

The rejection of claims 1, 5-9, 20, 21, 23, and 24 under § 103(a) based on Nasli-Bakir, Kubota, and Boeck is respectfully traversed. For at least (i) the reasons presented in Applicants' reply of November 24, 2009, (ii) the reasons presented in the telephonic interview of June 9, 2010, as summarized above, and (iii) the following reasons, the combined disclosures of Nasli-Bakir, Kubota, and Boeck would not have rendered obvious Applicants' claimed invention.

Claim 1 defines an embodiment of the invention that includes "a third glue reservoir configured as two glue subreservoirs disposed downstream of the first glue reservoir and upstream of the second glue reservoir and configured to supply the glue to the second glue reservoir in a pressurized state, *the glue in the third glue reservoir being under a higher pressure than the glue in the second glue reservoir.*"

The combined disclosures of Nasli-Bakir, Kubota, and Boeck do not teach all of Applicants' claim features. The Office Action relies upon the prior art depicted in Nasli-Bakir's Figure 1. The Office Action equates the glue day tank 16 of Nasli-Bakir's Figure 1 to Applicants' claimed third glue reservoir feature. But, as the Office Action acknowledges, Nasli-Bakir's Figure 1 shows that "*the glue is pumped from the third glue reservoir (16, 18) to the second glue reservoir 44 by pumps 30 and 32.*"

That is not Applicants' claimed invention. See Applicants' Figure 7. Instant claim 1 requires that the glue in the third glue reservoir 103a, 103b be under a *higher pressure* than the glue in the second glue reservoir 102a, 102b, 102c, 102d. The aforementioned feature of Applicants' apparatus is completely different from the prior art disclosed in Nasli-Bakir, in which the glue leaving glue day tank 16 *must be pumped by metering pump 30* in order for the system, which includes flow meter 34, valve 40, and mixer 38 upstream of spreader pipe 44, to operate. That is, according to the prior art disclosed in Nasli-Bakir, the glue in "the third glue reservoir" (i.e., glue day tank 16) is under a *lower pressure* than the glue in "the second glue reservoir" (i.e., spreader pipe 44).

Furthermore, although not addressed by the Office Action, the machine depicted in Nasli-Bakir's Figure 2 is as lacking as is the prior art shown in Nasli-Bakir's Figure 1. The gluing machine shown in Nasli-Bakir's Figure 2 also requires a metering pump 32 to

pump the glue from glue day tank 17 to mixer 38 and spreader pipe 44. And, in introducing "the inventive features of the novel system" (paragraph [0036]), Nasli-Bakir even teaches that, by definition, the glue day tank 17 is open to the atmosphere. That is, as described in paragraphs [0037] and [0038], glue day tank 17 serves as a "waste collection bucket" for the gluing operation:

As indicated above, the day tank 17 for the glue is different from the prior art. Namely, in the first place it is located beneath the spreader pipe 44 where it replaces the waste collection bucket 50 of the prior art system. Furthermore it comprises a stirrer 52.

In operation the day tank, which suitably contains about 15 liters of glue component, as a nominal filling level, will collect any waste glue mixture that is produced during the gluing operation (15 liters will be consumed in about 10 minutes of operation in average).

Clearly then, for the glue accumulated in Nasli-Bakir's day tank 17 to reach mixer 38 and spreader pipe 44, *it must be pumped*, i.e., "[t]he metering pumps 30, 32 are started and the components are fed to the mixer" (paragraph [0040], describing operation of the machine). That, however, is not Applicants' claimed invention.

To summarize, (i) one structural difference between Nasli-Bakir and the claimed invention is that Applicants' apparatus has no pump between the third reservoir and the second reservoir, and (ii) since Nasli-Bakir *requires* the pump, the reference does not meet Applicants' claimed feature of *the glue in the third glue reservoir being under a higher pressure than the glue in the second glue reservoir.*"

And, regardless of what Kubota and Boeck may disclose, neither reference rectifies any of the above-described deficiencies of Nasli-Bakir.

Accordingly, the combined disclosures of Nasli-Bakir, Kubota, and Boeck would not have rendered obvious the embodiment of the invention defined by claim 1. Claims 5-9 are allowable because they depend from claim 1, and for the subject matter recited therein.

Independent claim 20 is also allowable. Claim 20 is allowable because it includes at least the features discussed above with respect to the rejection of claim 1. Claim 21 is allowable because it depends from claim 20, and for the subject matter recited therein.

Claim 23 requires (i) that the glue in the third glue reservoir 103a, 103b be under a *higher pressure* than the glue in the second glue reservoir 102a, 102b, 102c, 102d and (ii) that a *pressure regulator* 105 be located in each glue line 110 between the third glue reservoir and the second glue reservoir. See the disclosure at specification page 7, lines 27-28, i.e., that "[t]he pressure regulator 105 forwards glue from the third glue reservoir to the second" and that "[i]t can *reduce the pressure* to the pressure prevailing in the second glue reservoir 102" (emphasis added). As is evident from the aforementioned disclosure, the pressure regulator 105 *reduces* the pressure of the glue as it travels from the third glue reservoir to the second glue reservoir.

This feature of Applicants' apparatus is completely different from the machines disclosed in Nasli-Bakir, in which the glue leaving the glue day tank must be pumped by the metering pump in order for the system, which includes flow meter 34, valve 40, and mixer 38 upstream of spreader pipe 44, to operate.

Accordingly, for at least all of the reasons presented above, the combined disclosures of Nasli-Bakir, Kubota, and Boeck would not have rendered obvious the embodiments of the invention defined by any of claims 1, 5-9, 20, 21, 23, and 24.

35 U.S.C. § 103(a)

Since the Nasli-Bakir, Kubota, and Boeck combination is applied in each of the other rejections under § 103(a) -- claims 10, 11, 14, and 16 as being unpatentable over Nasli-Bakir in view of Kubota and Boeck, and further in view of U.S. Patent No. 4,420,510 to Kunkel et al. ("Kunkel"); claims 12 and 13 as being unpatentable over Nasli-Bakir in view of Kubota and Boeck, and further in view of Kunkel and in further view of U.S. Patent No. 4,687,137 to Boger et al. ("Boger"); and claim 17 as being unpatentable over Nasli-Bakir in view of Kubota and Boeck, and further in view of U.S. Patent No. 3,965,860 to Cone et al. ("Cone") -- each of these rejections is also respectfully deemed to be obviated. The combined disclosures of the cited references would not have rendered obvious Applicants' presently claimed invention because the disclosures of Kunkel, Boger, and Cone do not

rectify any of the above-described deficiencies of the Nasli-Bakir/Kubota/Boeck combination.

Furthermore, there is simply no teaching in any of the references that would have led one to select the references and combine them in a way that would produce the invention defined by any of Applicants' pending claims.

Therefore, the various combinations of references would not have rendered obvious the embodiments of the invention defined by Applicants' pending claims 10-14, 16, and 17.

New claims 25 and 26 have been added to further define the scope of protection sought for Applicants' invention. New claims 25 and 26 are also allowable. Claim 25 defines in pertinent part the feature of "a second glue reservoir which communicates with at least two of the plurality of glue valves that are selectively opened, *the plurality of glue valves being disposed downstream of the second glue reservoir*, and the second glue reservoir being configured as four glue subreservoirs each including therein a gas cushion." See the depiction of the glue valves in instant Figures 6 and 7.

Claim 25 is allowable because it includes at least the features discussed above with respect to the rejections over Nasli-Bakir in combination with other references. Therefore, the combinations of references neither anticipate nor would have rendered obvious the apparatus defined by claim 25.

Furthermore, in the Office Action, the examiner interprets Nasli-Bakir's spreader pipe 44 as being the element that meets Applicants' claimed second reservoir feature. And, to meet Applicants' claimed "plurality of glue valves" feature, the Office Action relies upon Nasli-Bakir's glue valves 40 and 42. But, Nasli-Bakir's glue valves 40, 42 are simply start/stop valves (paragraph [0028]) located *upstream* of mixer 38, which itself is located *upstream* of spreader pipe 44. There are no valves whatsoever downstream of spreader pipe 44. Therefore, the prior art system depicted in Nasli-Bakir's Figure 1 most certainly does not meet Applicants' claim 25 feature of "the plurality of glue valves being disposed downstream of the second glue reservoir."

Claim 26 is also allowable. Claim 26 is allowable because it too includes at least the features discussed above with respect to the rejections over Nasli-Bakir in combination with other references. In addition, claim 26 defines an embodiment of the invention that includes "a glue discharge system configured to discharge the glue from the second glue reservoir without the glue passing through the glue valves, the glue discharge system being a glue recirculation line that conveys the glue from the second glue reservoir to the first glue reservoir."

Nasli-Bakir fails to disclose the claimed glue discharge system feature. Nasli-Bakir's Figure 2 shows a glue day tank that collects excess glue that has already passed through spreader pipe 44 (i.e., the gist of Nasli-Bakir's invention, collecting excess

glue to prevent waste). However, according to instant claim 26, with the glue recirculation line, the glue can be discharged without having passed the valves.

And, combining Nasli-Bakir with the disclosure of Kunkel (as relied on at Office Action page 12, numbered paragraph 11, in rejecting claims 12 and 13) is respectfully submitted to be illogical and an improper hindsight reconstruction. As indicated above, the entire theme of Nasli-Bakir's Figure 2 disclosure is collecting excess glue that has already passed through spreader pipe 44. That is Nasli-Bakir's recirculation; there would be no motivation for employing Kunkel's line 69. Claim 26, therefore, is also allowable.

In view of the foregoing, this application is now in condition for allowance. If the examiner believes that an interview might expedite prosecution, the examiner is invited to contact the undersigned.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By: Harvey B. Jacobson, Jr.
Harvey B. Jacobson, Jr.
Reg. No. 20,851

400 Seventh Street, N. W.
Washington, D.C. 20004
Telephone: (202) 638-6666
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